Tesla, Nikola
The New Tesla Electric Heater
n.p., n.d.
a.ms., 3 p. (possibly in Tesla's hand)

With typed copy and carbon.

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THE NEW TESLA ELECTRIC HEATER.

STRICTLY CONFIDENTIAL.

This device is greatly superior to the usual flat coil type in efficiency and other respects. It consists of a thin polished metal tube acting as reflector and a base equipped with socket and connecting terminals and carrying spaced resistor wires concentric with the tube and at a certain distance from the inner surface of the same. In this arrangement the diffuse radiation is virtually eliminated and the heater operates as if the resistors were not present, the rays being projected from the reflector radially to the central or focal region occupied by the boiling pot.

The principal advantages thus secured are the following:

1. A very high efficiency, as much as 96% being attainable.

2. The efficiency is practically the same whether the pot be large or small since the density of the rays is inversely as the diameter of the vessel.

3. Due to these features the current consumption

or hardly more than half of that in the best heaters of the type referred to.

4. The resistor has a relatively much longer life and can be made to last almost indefinitely in some cases. Also less wire can be used if desired.

5. The heat being largely confined to the range, the kitchen remains comparatively cool.

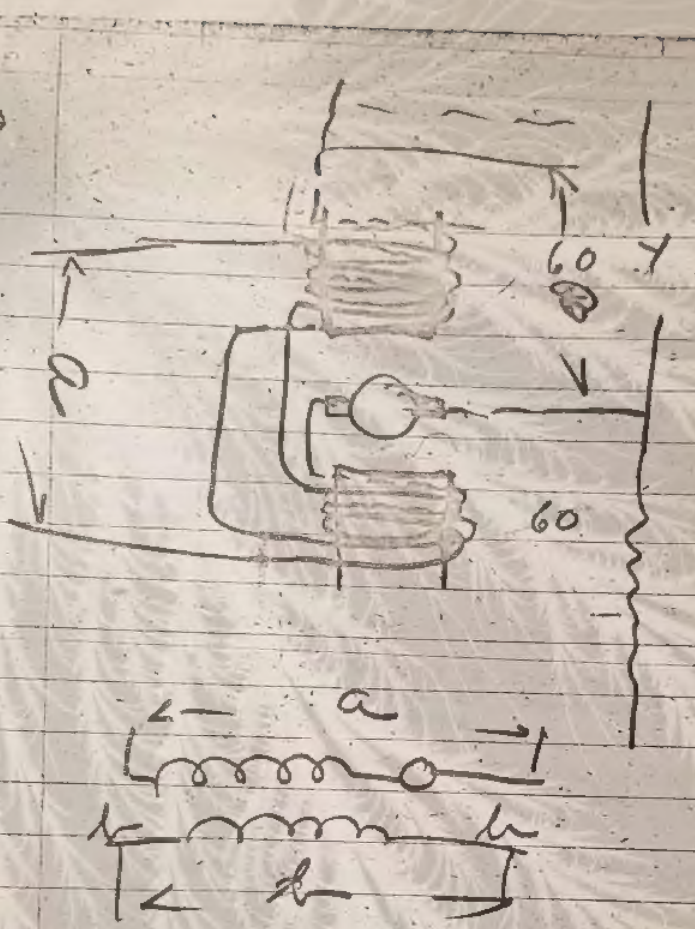
6. Another practical advantage is greater safety from a variety of accidents frequently occurring with ordinary ranges.

7. The new heater is especially adapted for use on shipboard, Pullman cars, aerial vehicles and automobiles.

8. Likewise, it is suitable for all kinds of service on the table, being free from the objections of the present heaters.

9. It saves considerable time in certain applications.

10. Owing to simplicity the cost of manufacture is low



Wind field coils with two wires - winding both at the same time. One set of field windings to be connected in series, see circuit A, and two terminals brought out. The other set of field windings should be connected in series with the armature, see circuit B. Each circuit to take 1/20 ampere at 60 volts.

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